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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,647	10/31/2003	Muneki Hamashima	032082	8467

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EXAMINER

TRAN, THUY V

ART UNIT	PAPER NUMBER
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2821

DATE MAILED: 07/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/697,647

Applicant(s)

HAMASHIMA ET AL.

Examiner

Thuy V. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment submitted on 06/08/2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10 is/are allowed.
- 6) ☒ Claim(s) 5-9 is/are rejected.
- 7) ☒ Claim(s) 1-4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is a response to the Applicants' amendment submitted on June 08, 2006. In virtue of this amendment:

- Claims 11-12 are canceled; and thus,
- Claims 1-10 are now presented in the instant application.

Upon reconsideration, the indicated allowable subject matter to claim 5 and its dependent claims provided in the last office action mailed on 03/06/2006 is hereby withdrawn in view of a newly discovered reference to Kolpin (U.S. Patent No. 4,900,982), and therefore, the finality of the last Office action mailed on 03/06/2006 is also withdrawn as a result. The new objections and the rejections to the claims are being made as follows:

Claim Objections/ Minor Informalities

1. Claims 1-3, 6-7, and 9 are objected to because of the following informalities:

Claim 1, line 7, --plurality of-- should be inserted between "the" and "secondary";

Claim 2, line 3, "the" should be changed to --a--;

Claim 3, line 4, --;-- should be inserted after "sample";

Claim 3, line 7, --plurality of-- should be inserted between "the" and "secondary";

Claim 3, line 8, "a" (second occurrence) should be changed to --the--;

Claim 3, line 10, "the detection signals" should be deleted; and --circuits-- should be inserted therefor;

Claim 3, line 12, "signals" should be changed to --signal--; "are" should be changed to --is--; and "the" should be deleted;

Claim 6, line 2, --further-- should be inserted between "gun" and "comprises";

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Claim 6, line 4, “a Wehnelt electrode,” should be deleted (since it’s already recited in claim 1);

Claim 6, line 7, “to be able” should be deleted;

Claim 7, line 3, --that of-- should be inserted between “to” and “said”; and

Claim 9, line 3, --plurality of narrowed-- should be inserted between “said” and “electron”.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claims 6-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 6, the term “a portion” recited in line 5 renders the claim indefinite since it is not clear where this portion belongs to, whether the first portion or the second portion. Clarification is required.

Claim 8 is also rejected under 35 U.S.C. 112, second paragraph, for the same respect.

Claims 7 and 8 are also rejected under 35 U.S.C. 112, second paragraph, since they are dependent on claim 5.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 5 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Kolpin (U.S. Patent No. 4,900,982).

With respect to claim 5, Kolpin discloses, in Figs. 1-3, an electron beam apparatus comprising an electron gun having a cathode electrode [21], a Wehnelt electrode [32], and an anode electrode [42]; wherein said Wehnelt electrode [32] comprises a first portion (which includes a central aperture [33]; see Fig. 1) adjacent to said cathode electrode [21] and a second portion (which includes parts received by notches [34] and screws [35]; see Fig. 1) separated from said first portion; said first portion being finely moveable in an x-direction, a y-direction, or in a z-direction orthogonal to one another (via set screws [35]; see col. 4, lines 33-35).

With respect to claim 9, the recitation “wherein said electron beam apparatus ... using a plurality of detectors” is not of patentable merits since it is directed to a manner of operating the device, or specifically an intended use, which does not differentiate apparatus claim from the prior art. A claim containing a recitation with respect to the manner in which a claimed apparatus to be employed does not differentiate the claimed apparatus from a prior art apparatus if the prior art apparatus teaches all the structural limitations of the claim. See MPEP § 2114.

Allowable Subject Matter

6. Claims 1-4 would be allowed if corrected to overcome the objections set forth above in this Office Action.

7. Claim 10 is allowed.

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8. Claims 6-8 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter:

Prior art fails to disclose or fairly suggest:

- An electron beam apparatus comprising a deflector for deflecting said secondary electron beams in said secondary optical system wherein said deflector is controlled to deflect said plurality of secondary electron beams to prevent said plurality of secondary electron beams from moving on said detector in response to the scanning of said plurality of primary electron beams, in combination with the remaining claimed limitations as called for in independent claim 1 (claims 2 and 4 would be allowed since they are dependent on claim 1);
- An electron beam apparatus further comprising a number of memories twice as much as a number of the detectors for storing digital signals generated by A/D converting the detection signals, and change-over switches disposed in front of and at a back of the memories, in combination with the remaining claimed limitations as called for in independent claim 3;
- An electron beams apparatus wherein said electron gun comprises a multi-emitter machined as a cathode including a plurality emitters integrated thereon, a heater for heating said multi-emitter, and a supporter for fixing said multi-emitter and said heater at given positions, in combination with the remaining claimed limitations as

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called for in claim 6 (claims 7-8 would be allowable since they are dependent on claim 6); and

- An electron beam apparatus comprising a condenser lens for converging the plurality of primary electron beams emitted from said electron gun, a multi-aperture plate having a plurality of apertures, a demagnification lens for demagnifying the plurality of primary electron beams, wherein said condenser lens forms a crossover image at a point between said multi-aperture plate and said demagnification lens, in combination with the remaining claimed limitations as called for in independent claim 10.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy V. Tran whose telephone number is (571) 272-1828. The examiner can normally be reached on M-F (8:00 AM -4:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on (571) 272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

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like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

07/06/2006

A handwritten signature in black ink, appearing to read 'Thuy V. Tran', with a stylized, cursive script.

THUY V. TRAN
PRIMARY EXAMINER